

Analytic Geometry

- 1** What line equation would have a slope that is PARALLEL to the slope of this line equation?

$$-5x + 1y = 2$$

A

$$y = -5x + 2$$

B

$$y = 5x + 2$$

C

$$y = \frac{1}{5}x + 2$$

D

$$y = \frac{5}{2}x + 2$$

- 2** What line equation would have a slope that is PARALLEL to the slope of this line equation?

$$y = -\frac{1}{2}x + 3.5$$

A

$$y = \frac{1}{2}x + 3.5$$

B

$$y = \frac{2}{2}x + 3.5$$

C

$$y = -\frac{1}{2}x + 3.5$$

D

$$y = -2x + 3.5$$

- 3** What line equation in standard form would have a slope that is PARALLEL to the slope of this line equation?

$$10x + 2y = 10$$

A

$$15x + 3y = 15$$

B

$$2.5x + 1y = 5$$

- 4** What line equation would have a slope that is PARALLEL to the slope of this line equation?

$$-6x + 2y = 2$$

A

$$y = \frac{3}{2}x$$

B

$$y = \frac{1}{3}x$$

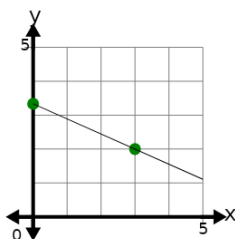
C

$$y = -3x$$

D

$$y = 3x$$

- 5** What line equation in standard form would have a slope that is PERPENDICULAR to the slope of the line on this graph?

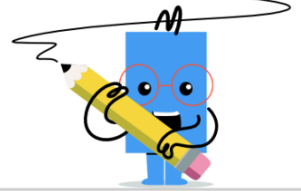


A

$$-6x + 2y = 6$$

B

$$-0.33x + 1y = 3$$



Analytic Geometry

- 6 Find the equation for the perpendicular bisector of segment AB

Point A : (6,6)

Point B : (10,2)

A

$$y = 1x + -5$$

B

$$y = 1x + -4$$

C

$$y = \frac{2}{7}x + \frac{12}{7}$$

D

$$y = 1x + -8$$

- 7 Find the distance between the given (x,y) points

Point A : (-2,3)

Point B : (0,1)

A

$$\sqrt{1}$$

B

$$\sqrt{2}$$

C

$$\sqrt{8}$$

D

$$\sqrt{14}$$

E

$$\sqrt{13}$$

F

$$\sqrt{12}$$

- 8 Find the distance between the given (x,y) points

Point A : (0,0)

Point B : (4,2)

A

$$6.15$$

B

$$8$$

C

$$3.63$$

D

$$6.99$$

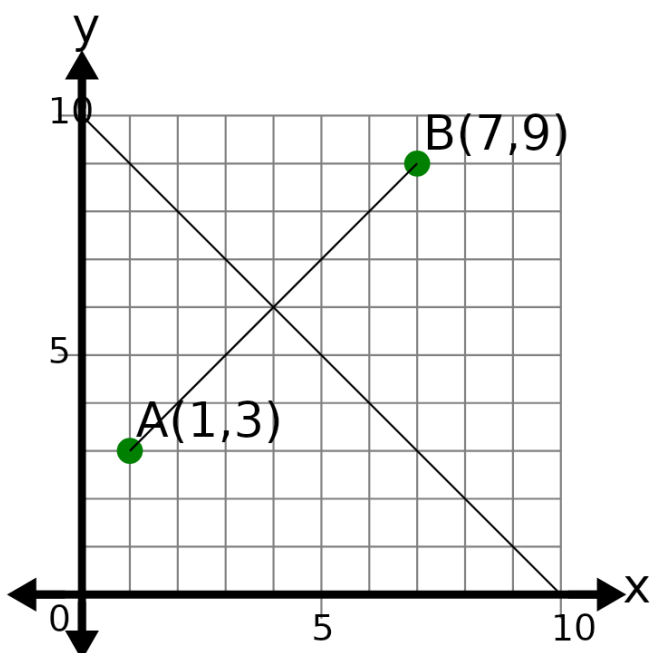
E

$$4.47$$

F

$$1.95$$

- 9 Find the equation for the perpendicular bisector of segment AB



A

$$y = -1x + 10$$

B

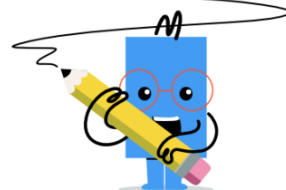
$$y = -\frac{5}{7}x + \frac{62}{7}$$

C

$$y = -3x + 18$$

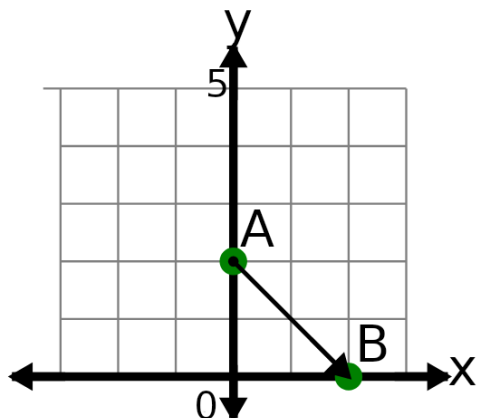
D

$$y = -\frac{8}{3}x + \frac{50}{3}$$



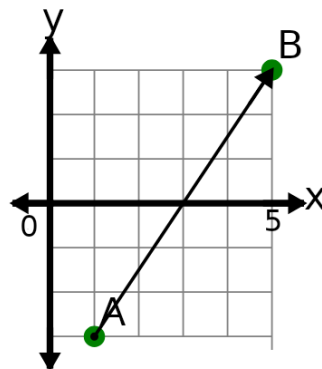
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- 10** Find the distance between point A and point B on the diagram



A 1.15	B 6.19	C 2.83
D 1.37	E 4.51	F 1

- 11** Find the distance between point A and point B on the diagram



A $\sqrt{87}$	B $\sqrt{82}$
C $\sqrt{92}$	D $\sqrt{57}$
E $\sqrt{2}$	F $\sqrt{52}$

- 12** Which equation would have this center coordinate and radius?

$$C = (-6, 2)$$

$$r = 4$$

A $(x + 6)^2 + (y - 2)^2 = 4^2$
B $(x + 6)^2 + (y + 2)^2 = 4^2$

- 13** Which equation would have this center coordinate?

$$C = (5, -4)$$

A $(x - 5)^2 + (y + 4)^2 = 4^2$
B $(x + 5)^2 + (y - 4)^2 = 4^2$

- 14** Find the mid-point of segment AB

Point A : (4, 9)

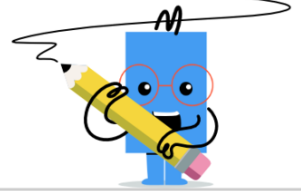
Point B : (6, 5)

A (4, 3.5)	B (5, 5.5)
C (5, 7)	

- 15** Find the slope of the line between the two (x, y) points

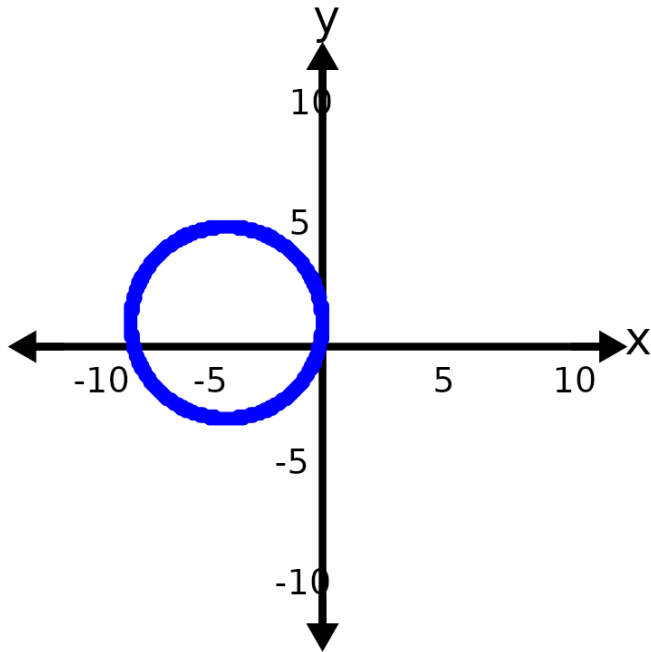
(3, 2) and (6, 6)

A 1.33	B -1.25	C 0.75
D 2.13	E 0.8	F 1.07



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16 Which equation would create this graph?



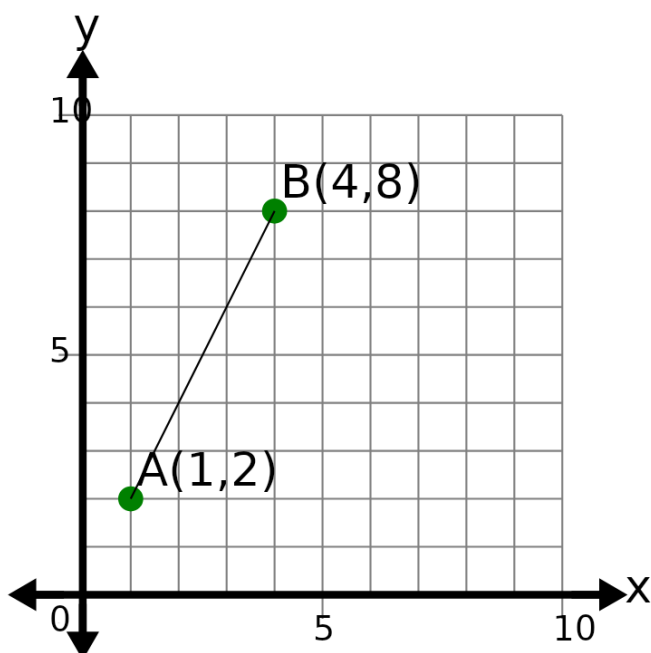
A

$$(x - 4)^2 + (y - 1)^2 = 4^2$$

B

$$(x + 4)^2 + (y - 1)^2 = 4^2$$

17 Find the mid-point of segment AB



A

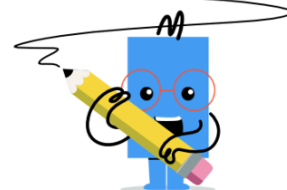
$$(2.5, 3.5)$$

B

$$(2.5, 4.5)$$

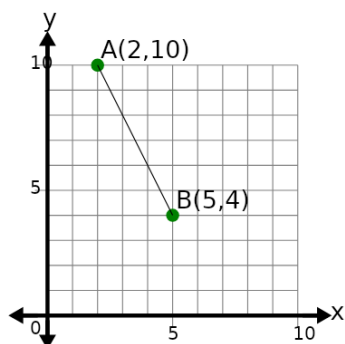
C

$$(2.5, 5)$$



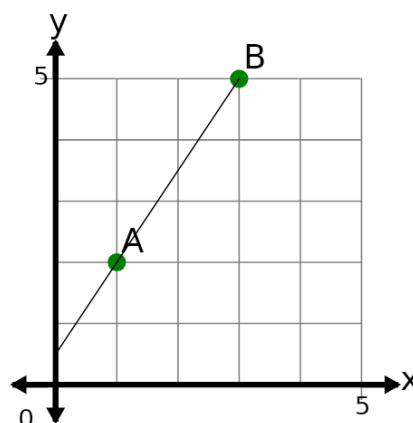
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18 Find the slope of segment AB



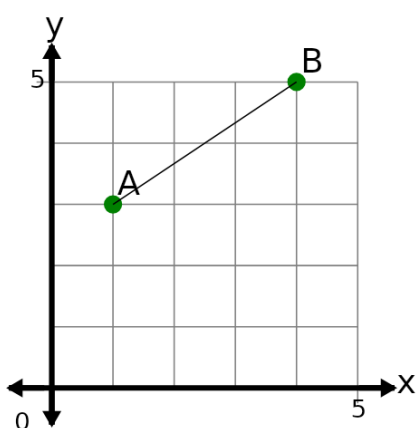
A	-2	B	$-\frac{6}{5}$
C	$-\frac{10}{3}$	D	$-\frac{4}{3}$
E	-3	F	$-\frac{1}{2}$

19 Find the slope of the line between Point A and Point B



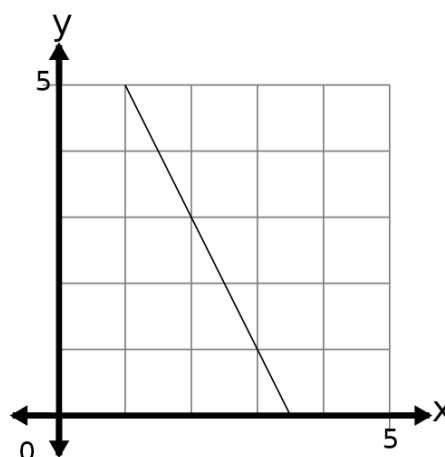
A	0.5	B	-2.5	C	0.67
D	0.75	E	-2	F	1.5

20 Find the slope of the line between Point A and Point B

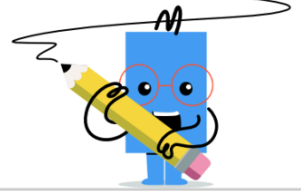


A	1.5	B	-0.75	C	1.87
D	0.25	E	1.73	F	0.67

21 Find the slope of the line



A	-2.8	B	-0.25	C	1
D	-5.6	E	-0.5	F	-2



Analytic Geometry

22 Find the slope of segment AB

Point A : (4, 2)

Point B : (9, 8)

A	$\frac{5}{6}$	B	$\frac{3}{4}$	C	$\frac{6}{5}$
D	$\frac{2}{5}$	E	$\frac{3}{5}$	F	$-\frac{6}{5}$

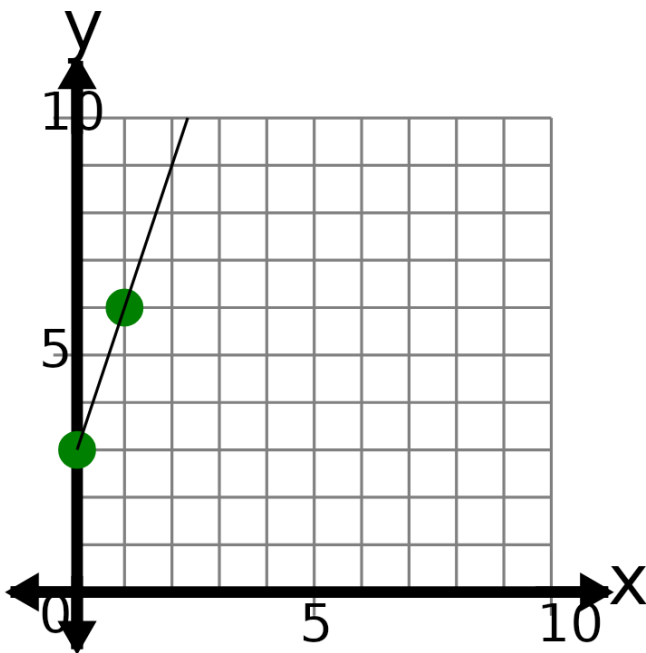
23 Is the slope of segment AB equal to $-\frac{1}{5}$

Point A : (4, 9)

Point B : (5, 4)

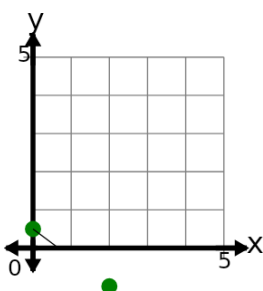
A	B
No	Yes

24 What slope does the line on this graph have?



A	$m = \frac{1}{3}$
B	$m = \frac{3}{2}$
C	$m = -3$
D	$m = 3$

25 What slope does the line on this graph have?



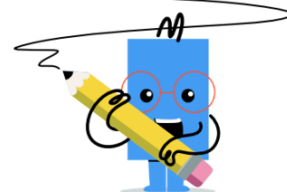
A	$m = -0.25$
B	$m = -2$
C	$m = -0.5$
D	$m = 0.5$

26 Find the intersection point of these two lines

$$y = 1x - 2$$

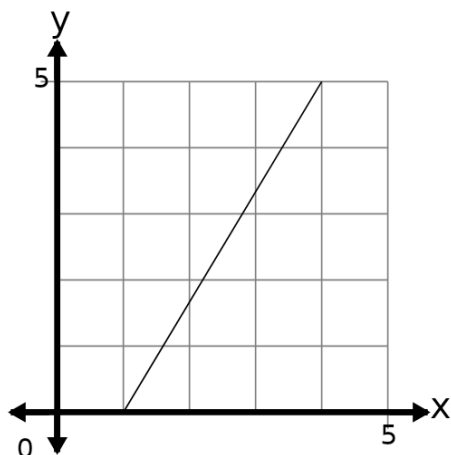
$$y = -3x - 1$$

A	(-3.75, -3.75)	B	(-2.75, -6.75)
C	(-4.75, 2.25)	D	(3.25, -2.75)
E	(1.25, -1.75)	F	(0.25, -1.75)



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27 Find the slope of the line



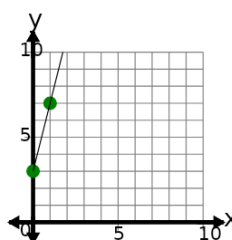
A 2.25	B 4	C -0.25
D 1.67	E 0.67	F 3.67

28 Find the intersection point of these two lines

$$y = 8x + 5$$
$$y = -1x - 4$$

A (-6, -1)	B (-2, 1)
C (1, -4)	D (-3, -1)
E (-1, -3)	F (-6, -7)

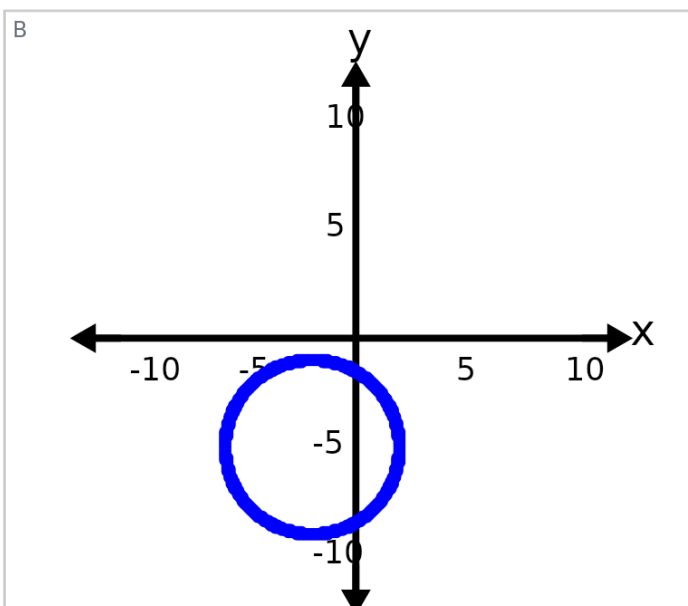
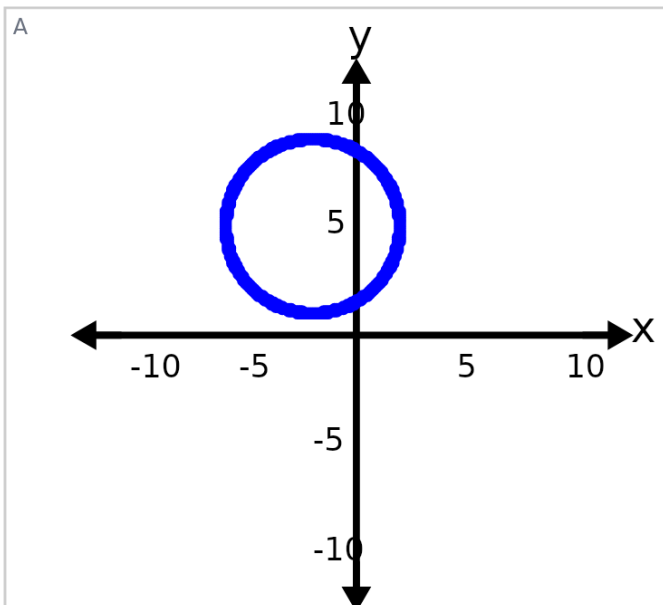
29 What line equation in standard form would create the line on this graph?

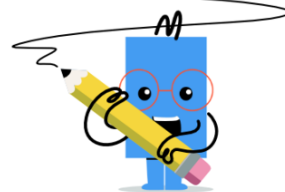


A $8x + 2y = 6$
B $-12x + 3y = 9$
C $-2x + 1y = 3$
D $-0.75x + 3y = 9$

30 Which graph shows this correctly?

$$(x + 2)^2 + (y - 5)^2 = 4^2$$





Analytic Geometry

31 What line equation would create this set of X, Y values?

X	Y
0	5
1	0
2	-5
3	-10
4	-15

A $y = -\frac{1}{5}x + 5$

B $y = -\frac{5}{2}x + 5$

C $y = -5x + 5$

D $y = 5x + 5$

32 What line equation in standard form would be equivalent to this line equation?

$$y = -4x + 4$$

A $4x + 1y = 4$

B $0.25x + 1y = 4$

C $-4x + 1y = 4$

D $2x + 1y = 4$

33 Find the equation of the line through the two (x, y) points in slope/y-intercept form ($y = mx + b$)

(0, 1) and (8, 2)

A $y = \frac{1}{8}x + -\frac{1}{8}$

B $y = \frac{1}{8}x + 1$

C $y = \frac{1}{3}x + 1$

D $y = -\frac{1}{7}x + 1$